

# Meanings and Implications of Acceptability Judgments for Wilderness Use Impacts

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**Abstract**—While the concept of “acceptability” is central to the Limits of Acceptable Change (LAC) framework, there is inadequate understanding of how “acceptability” is judged and how unacceptable conditions affect visitor experiences. To address this knowledge gap, visitors to nine wilderness areas were interviewed. Judgments of social and environmental conditions fell into three categories: acceptance, nonacceptance, and conditional acceptance (in which visitors were not entirely satisfied but felt that achieving a more acceptable condition might have negative consequences). Persons expressing conditional acceptance used one or more of three coping strategies: rationalization, within-setting displacement or remediative behavior. Environmental impacts were more likely to be judged unacceptable than social impacts, especially in urban-proximate settings.

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Public land managers increasingly must consider the “social acceptability” of their management strategies, and of the social and biophysical conditions those strategies produce, both within and outside of wilderness areas. Wilderness planning in the USDA Forest Service typically follows a Limits of Acceptable Change (LAC) framework, whereby standards are set for wilderness conditions and use impacts based on constituents’ and/or managers’ judgments of what constitutes an “acceptable” level of human influence (McCool and Cole 1997; Stankey and others 1985). The LAC framework is designed for consensus-building, bringing together the various interests and constituencies who must negotiate standards for wilderness conditions based on their differing conceptions of acceptable levels and types of change. Social acceptability also is a keystone objective, along with ecological sustainability and economic feasibility, of the ecosystem management approach that now guides public land management on all federal lands in the United States. Yet there remains an inadequate understanding of what constitutes “acceptability” with regard to the practice of wilderness management in particular, and public land management in general (Brunson and others 1996; Stankey and Clark 1992).

If social acceptability of management practices and conditions is a goal of public land agencies, both in and around wilderness, it is important that we understand what is meant when a setting condition or management decision is judged “acceptable” or “unacceptable.” To give a wilderness example, managers must understand whether

the standards expressed by stakeholders in an LAC process are meant to be targets (what they prefer to see as the lower end of a preferred range of conditions) or thresholds (what they are willing to encounter before an experience is diminished beyond tolerable limits). If both meanings of acceptability are possible, it is valuable to know which meaning stakeholders are more likely to apply to a particular type of impact.

This paper describes research intended to help managers understand what wilderness visitors mean by judgments of acceptability, and what the consequences for visitors might be if managers are unable to achieve or maintain acceptable conditions. We analyzed qualitative data from onsite interviews of visitors to nine western U.S. wildernesses. The respondents were asked questions aimed at illuminating two research questions: (1) What is meant by statements that a social or environmental condition is “acceptable”? and (2) What are the implications of nonacceptable conditions for current and future wilderness experiences?

## What Is “Acceptability?”

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Public concerns about natural resource management practices and conditions have gained attention with the rise of political protests and judicial intervention in management activities. One factor in the shift to an ecosystem management approach was a need to address complex or “wicked” problems in ways that are ecologically, economically and socially appropriate (Stankey 1995). In a problem analysis addressing social issues associated with the transition to ecosystem management in the Forest Service, Stankey and Clark (1992) found that land managers did not adequately understand what constitutes “acceptability” with respect to the practice of national forest management, nor did they understand the behavioral consequences of differences in how people perceive acceptability. Brunson (1996) subsequently examined the literature of natural resource management and the social sciences and developed the following definition:

[A]cceptability in forest management results from a judgmental process by which individuals (1) compare the perceived reality with its known alternatives; and (2) decide whether the “real” condition is superior, or sufficiently similar, to the most favorable alternative condition.

The term “social acceptability” is given to the expression of these individual judgments by identifiable and politically relevant interest groups or other segments of the public. Usually this occurs only if the evaluated condition or management action is judged inferior to an alternative condition or action that is *believed to be achievable*, so that members of the public take actions they believe can shift conditions toward a more favorable alternative. In addition to

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achievability, Brunson (1996) found that acceptability judgments often are influenced by considerations of equity, i.e., whether the imagined alternatives are sufficiently fair to others besides the evaluator.

Only if the questions about an alternative's preferability, achievability and equity are satisfactorily answered will the existing condition be judged "unacceptable." At that point, action will be taken which is likely to create or restore the favorable alternative. That action may be a personal behavior (such as choosing a more remote campsite) and/or a political one (such as seeking to influence a management plan to reduce crowding at popular camping areas). These actions fall into the general category of "coping behaviors." Conversely, people who find a condition or action acceptable are likely to remain silent about it. However, managers need to be wary of silence, because sometimes it may not signify acceptance, but instead a lack of the resources needed to express displeasure.

Petty and Cacioppo (1986) proposed a "social judgment theory" which suggested that people make acceptability judgments by identifying ranges of acceptable and unacceptable conditions that may not be contiguous; that is, there can be an intermediate range about which they are noncommittal. Williams and others (1992) used this premise to study the variability of users' judgments about the acceptability of social impacts in wilderness. Their findings support the theory with regard to wilderness users' judgments about impacts, in that numerous respondents indicated levels of impact in a mid-range that was neither acceptable nor unacceptable.

## Coping With Less Than Optimal Conditions

Research on acceptability of wilderness impacts has tended to focus on identifying what those impact levels might be (Lucas 1980, Roggenbuck and others 1993) rather than how those judgements are developed. Researchers have not examined the consequences of failure to achieve LAC standards for wilderness experiences. However, there has been considerable study of the use of personal coping behaviors—the means by which individuals relieve the stress or anxiety associated with a negative impact under suboptimal conditions—in wildland recreation settings. Becker (1981) provided a definition of coping behavior that is particularly relevant to this research. He explained coping behavior as "a move away from an unacceptable situation rather than a move toward an optimal one." Based on this definition, we can expect the threshold of acceptability to occur when visitors choose displacement from a situation rather than continuing to accept it.

Hammitt and Patterson (1991) expanded on Becker's conceptualization when they observed that coping behaviors can either be behavioral or cognitive. They suggested that displacement, product shift and rationalization serve as the three types of coping mechanisms. Anderson and Brown (1984) defined displacement as a change in behavior caused by a perceived adverse condition in the recreation environment, which can occur at either a micro level (within a particular site) or macro level (between sites). Micro-level displacement can consist of a change in site within a preferred setting, or a change in timing of a visit to that

setting (Anderson and Brown 1984; Shelby and others 1988). Brunson and Shelby (1993) proposed that displacement strategies are preferred when they are most likely to allow visitors to continue to enjoy the originally sought experience. Thus micro-level behavioral coping is preferred over macro-level displacement, unless the former is not possible or is judged likely to provide an unacceptable experience.

*Product shift* is a cognitive mechanism whereby an individual, when faced with an unanticipated negative condition, re-evaluates and mentally adjusts to the recreation experience she/he is having. In doing so, the visitor becomes satisfied in spite of the negative impact. Shelby and others (1988) concluded that product shift was the most commonly used coping strategy of boaters on Oregon's Rogue River.

*Rationalization* is suggested as a cognitive coping strategy by dissonance theory (Festinger 1957), which states that humans are psychologically motivated to be consistent; if activities or situations fail to achieve their objectives, they may rationalize the experience to restore cognitive consistency. Since recreation is a voluntary activity, people may be motivated to rationalize most impacts as acceptable. Hammitt and Patterson (1991) identified rationalization as the least documented coping strategy in wildland research.

Kuentzel and Heberlein (1992) suggested that there is a hierarchy of coping strategies. Their model proposed that different coping strategies parallel different levels of perceived impact: with increasing impact, a visitor will shift from a noncoping state to adopt a cognitive coping strategy, then to a within-site behavioral coping strategy before finally leaving a site altogether.

Despite the rather extensive literature on coping with wildland recreation use impacts, the LAC framework does not really account for coping strategies at all. Instead, it defines impacts as either acceptable or unacceptable. Williams and others (1992) found a middle range between those two conditions. It may be that coping is most likely to occur within that noncommittal range. Alternatively, the noncommittal range may indicate that micro-level coping strategies are no longer effective. Either way, wilderness managers clearly can benefit by knowing more about what judgments of acceptability mean; without such information, they cannot be sure of the consequences of unmet standards for wilderness visitors.

## Research Methods

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Given that the focus of this research was to explore the meaning of acceptability judgments for wilderness conditions, and since there was little or no prior research to guide the research, a qualitative research approach was chosen. Data for analysis consisted of wilderness visitors' own words, instead of imposed categorical or numeric responses. A "grounded theory" approach (Glaser and Strauss 1967) was used, in which inductive reasoning is employed to discover any theory that might emerge from the data, and that theory is then tested using a hypothetico-deductive approach and quantitative methods. This paper describes only the qualitative phase of the study.

## Interview Sampling

Semi-structured interviews were conducted with 97 visitors to nine wildernesses or wilderness study areas in the western U.S. The wildernesses selected were administered by the Forest Service or Bureau of Land Management and represented a range of biophysical settings from the California Coast Range to the central Rocky Mountains to the Colorado Plateau. These areas were categorized in two dichotomous ways: urban-proximate versus urban-distant, and large (where multi-day trips are common) versus small. The wildernesses where sampling occurred were:

Small, urban-proximate—Lone Peak, Mount Olympus, Mount Timpanogos, Twin Peaks (all UT).

Small, urban-distant—Castle Crags (CA).

Large, urban-proximate—High Uintas (UT).

Large-urban-distant—Bridger (WY.), Grand Gulch Primitive Area (UT), Paria Canyon (UT-AZ).

A convenience sampling strategy was used. The interviewer contacted wilderness visitors at trailheads, attraction points, campsites or beside trails. In groups with adults and children, the adults were interviewed. Attempts were made to interview all parties encountered at trailheads, except those who arrived while another interview was under way. Interviews inside wildernesses were sought only if they could be done without compromising visitors' experiences. A total of 52 interviews were completed at the more remote wildernesses and 45 at urban-proximate areas. Sampling occurred on weekends or other times, such as university vacations, when use was expected to be highest and impacts (especially social impacts) were expected to be most salient to the respondents.

## Data Content and Analysis

An interview protocol was developed in which several questions were asked of all respondents, but "probes" could be used when respondents' initial statements suggested the need for further exploration. General questions asked in all interviews focused on: visitors' feelings about the conditions found in the area; conditions (if any) that were found to be unacceptable; reasons for judgments that a condition was unacceptable; effects of an unacceptable condition on the present trip; and effects on future visits to the wilderness where the survey took place. The question format asked respondents to consider both social impacts (crowding, user group conflicts, depreciative behaviors) and environmental impacts (trail erosion, fire rings, evidence of horse use). Basic demographic and trip characteristic data were also collected.

Analysis of data involved procedures of open and axial coding, as described by Strauss and Corbin (1990). Open coding is the process by which interview data are fractured into discrete parts, closely examined, and compared for similarities and differences. Questions are then asked about the data, based on the investigator's own observations as well as assumptions rooted in prior research literature. Axial coding involves reassembling data in new ways based on the contexts in which the described phenomena are embedded.

## Results

Wilderness users who were questioned about the acceptability of the wilderness conditions they encountered generally expressed their feelings in one of three ways: (1) nonacceptance; (2) unconditional acceptance; or (3) conditional acceptance, in which respondents said they judged impacts as acceptable, but only because they were willing to sacrifice some aspect of what they would consider an ideal experience. Responses in each category differed in how impacts were described and how those impacts affected current and future experiences in that wilderness.

### When Impacts Are Unacceptable

Persons who judged an impact as unacceptable made up 13% of the total sample. Although both social and environmental impacts were judged as unacceptable, environmental impacts were more commonly viewed as unacceptable. In addition, respondents appeared to have lower thresholds for encounters with environmental impacts than for social impacts; that is, people were more likely to judge impacts such as litter, tree carving, or fire rings as unacceptable after just a few encounters, while more encounters were required for social impacts to reach unacceptable levels.

Judgments of unacceptability often were accompanied by a call for management action. For example, a backpacker in the Bridger Wilderness said about trail erosion, "If the area is going to last, then I'd say the trails need to be addressed right away." Similarly, a High Uintas visitor who considered the amount of packstock use unacceptable said, "I don't mind seeing some packers, but there should be a limit."

Impacts judged as unacceptable typically did not have lasting effects on the current experience. Most visitors said the impacts had an effect when they occurred, but they then forgot about them. A few respondents said the impacts changed the course of their trip, but they still described the overall trip positively.

### Unconditional Acceptance of Impacts

Those who unconditionally accepted wilderness conditions on the trip where they were interviewed made up 17% of visitors surveyed. A slightly higher proportion of interviews with unconditional acceptors took place in urban-proximate wildernesses than urban-distant areas. Respondents in this category would sometimes acknowledge that wilderness impacts occurred, but said they had not been affected by those impacts on that visit. One man in the Bridger Wilderness said, "It's great to see a place that is like it was 30 years ago—there's no litter. You can't drink the water, but there are things you can do to get around that." At times, an unconditional acceptor would include a note of surprise about the lack of impacts they found. A visitor to the Lone Peak Wilderness, which overlooks the Salt Lake City and Provo metropolitan areas, said, "[The area] looks real good. I am surprised there's not more abuse here."

## Conditional Acceptance of Impacts

Those who conditionally accepted the wilderness conditions they encountered made up 70% of visitors surveyed at both the urban-proximate and urban-distant locations. Respondents made both cognitive or behavioral adaptations to impacts in order to maintain acceptance of wilderness conditions. Three types of adaptations were identified: rationalization of the impact, remediative action taken to reverse the impact, and micro-site displacement from the impact site.

**Rationalization**—Rationalization was the most common adaptation used by those who conditionally accepted an observed wilderness impact (50% of all reported adaptations). The justifications most commonly given for suboptimal conditions were: consistency of impacts with expectations; “it could be worse” responses; equity concerns; and rejection of means to achieve superior conditions.

Expectation-based rationalizations were common, especially in response to social impacts. Respondents often accepted a level of impact that they characterized as less than optimal because the impact they experienced was close to, or lower than, what they had expected to experience on that visit. One person hiking in the Bridger Wilderness, who had first described the area as “crowded,” then said that the impact was not unacceptable because “it’s about standard, based on previous experiences. This is one of the more popular places in the [Wind River Range]. I’d say this is how it is up here.” A day hiker at Lone Peak described the area as having “too many people, a lot of people,” but still acceptable because, “For Saturday morning this close to Salt Lake City, what could you expect?”

When environmental impacts were rationalized, respondents sometimes suggested that conditions were acceptable because they were not as bad as they could be, given the amount of use the area receives. One person visiting the High Uintas Wilderness used this rationalization to accept suboptimal conditions he identified with domestic packstock. When asked if he considered the impact unacceptable, he replied, “No, for the amount of [horse] traffic here, the place is in real good shape.”

Another common theme among those who rationalized social impacts was a concern about fair access to wilderness settings. Respondents stated or implied that since wilderness is a public resource, everyone has a right to use the area as needed. A typical comment was this one from a Lone Peak Wilderness visitor: “I would like to keep the area just for me, but it’s here for people to enjoy.” Packstock impacts sometimes were rationalized due to equity concerns; as a backpacker in the High Uintas Wilderness explained, “I guess I don’t care for the horses that much, but they have a right to be here, too.”

A closely related rationalization entailed rejecting what people imagined to be the most likely means to achieve better conditions: use restrictions. This justification was given in response to both environmental and social impacts. One frequent visitor to the High Uintas Wilderness illustrated this sentiment in his statement, “There’s no other way to deal with people than to accept them. I don’t agree with restricting [use in] the area.”

**Remediative Action**—Visitors who judged suboptimal conditions as acceptable often took action to improve the

negative impact(s) they experienced. All of these actions were responses to environmental conditions, usually litter. It was not clear whether the remediative act was seen as a way to feel better about the experience, or simply an obligatory response. As one backpacker in the Twin Peaks Wilderness said, “I try to stay loose about it. It’s beyond my control. I pick up trash, but you can’t let it ruin the experience.” This method was reported by 13% of conditional acceptors, often in conjunction with other coping mechanisms. For example, the person quoted above continued by expressing concern about management action to control impacts, stating, “Limits around here are unnecessary right now.”

**Micro-Level Displacement**—Displacement away from negative impacts was reported by 36% of those in the “conditional acceptor” group. Primarily in response to social impacts, people described choosing different routes or campsites, traveling farther than they had planned or stopping sooner. For example, a group of hikers having lunch in the Lone Peak Wilderness—an area they had described as “crowded”—said, “It hasn’t affected us too much. We’d be over there having lunch [instead of here] though,” pointing to an area occupied by a number of people.

## Effects on Future Visits

Displacement, both micro- and macro-level, was frequently mentioned by visitors when asked how impacts they encountered might affect future visits to the wilderness where they were interviewed. Some felt that future visits might be affected but weren’t sure, or they said that the effect would depend on the circumstances of subsequent visits.

A large majority of visitors who judged an impact unacceptable said it would affect their decisions about future trips—that they would look for areas with lighter impacts or would not come back at the same time of year. One person said he would never use the same trailhead again. Among those who expressed conditional acceptance, displacement was mentioned less frequently as an effect on future visits to urban-proximate areas than on visits to more remote wildernesses. When urban-proximate visitors predicted they would change future plans, they usually explained that they would choose another day of the week to visit. At more remote areas, visitors mentioned both temporal and spatial adjustments. One person in the Bridger Wilderness stated, “I’ll look for an area with less traffic, especially less horse traffic.” Another Bridger visitor would “come at a different time, later in the year, to see fewer people.”

Several persons reported that they had already taken precautionary measures to avoid anticipated social impacts. For example, a Twin Peaks visitor reported that she “got going early so as to not see too many people.” A couple who said they visit the Twin Peaks Wilderness twice a week noted, “On Sunday we go elsewhere because the numbers are unacceptable to us then.” A High Uintas visitor said he specifically chose not to go into a popular region of the wilderness to “avoid the crowds.” Experienced visitors who had chosen not to displace themselves often offered reasons of place attachment. For example, a Lone Peak hiker said, “There’s only one Pfefferhorn. We have to come back once a year to climb it.”

## Discussion and Implications

As suggested by the results of this study, visitors' judgments about the acceptability of wilderness impacts include consideration of the contexts of the impacts experienced, the types and levels of impact experienced, and the strategies possible to avoid experiencing unacceptable impacts (table 1). These findings are consistent with Brunson's (1996) suggestion that acceptability judgments are made only after comparison with known alternative conditions. Judgments often were made in light of prior expectations about the conditions to be encountered. This is consistent with many prior studies of social impacts in wildland settings; indeed, comparison of actual and expected conditions forms the basis for judgments about recreation carrying capacity (Shelby and Heberlein 1986). As Brunson (1996) previously observed in a study of acceptability of timber harvest methods, judgments in this study were made in light of equity considerations and the desirability of probable means to achieve alternative conditions. Contrary to Brunson's predictions, judgments of unacceptability were rarely accompanied by a call for *political* action; instead, respondents who found impacts unacceptable often called for *management* action to restore acceptable conditions.

We asked about both social and environmental impacts, and found that our respondents were more likely to judge the latter as unacceptable. Standards for environmental impacts also tended to be more stringent, in terms of the frequency of encountering suboptimal impacts. This finding is consistent with work by Roggenbuck and others (1993), who found that site impacts were more influential than social encounters in defining wilderness experience quality.

Perhaps our most striking finding was the high percentage of "conditionally acceptable" judgments. These judgments fall into the mid-range between acceptability and unacceptability, as predicted by Petty and Cacioppo (1986) and supported by Williams and others (1992). However, they do not represent a noncommittal response so much as an adjustment made to restore conditions to an acceptable status. In other words, wilderness visitors in this study relied heavily on coping strategies in order to maintain a high-quality wilderness experience in spite of suboptimal conditions. This discrepancy may have been influenced by the methodology, as our qualitative approach encouraged respondents to explain what they meant by a response that was neither unconditionally acceptable nor unacceptable.

The use of coping strategies is well-documented in the recreation literature (Anderson and Brown 1984; Brunson and Shelby 1993; Hammitt and Patterson 1991; Shelby and others 1988). As predicted by Hammitt and Patterson (1991),

both cognitive and behavioral strategies were employed; both temporal and spatial displacement were reported; and spatial displacement took place at both micro- and macro-levels. However, our results differed from those predicted by Hammitt and Patterson (1991) in two respects. First, we found little evidence of product shift by our interviewees. This may reflect a tendency for our respondents to be frequent wilderness visitors, especially to the urban-proximate areas near Salt Lake City. Second, we identified a behavioral coping strategy, remediative behavior (such as picking up litter left by others), that has rarely been mentioned in prior discussions of coping.

Hammitt and Patterson (1991) suggested that rationalization is the least documented of the coping strategies used in wildlands. Our study provides such documentation; indeed, rationalization was the most common strategy we observed for coping with suboptimal conditions. Rationalization typically entailed placing suboptimal impacts into a larger context, such as a recognition that impacts could easily be greater or that reducing impacts could only be accomplished through undesirable or inequitable restrictions on use.

Nonoptimal conditions typically were said to affect future visits more than current ones. Even the unacceptable impacts were generally reported to have only a temporary effect on the quality of the wilderness experience. As predicted by Brunson and Shelby (1993), people who expected to be displaced in future trips were more likely to look for new ways to enjoy the same setting, rather than opting for macro-level displacement. This was especially true for visitors to urban-proximate areas, who may find it difficult to substitute other sites that are as convenient to visit in a short time frame.

The wildernesses chosen for this study differed in terms of their size, distance from urban areas, geographic location in the West, and administering agency (BLM or Forest Service). Of these variables, only urban-proximity was found to have an association with acceptability judgments. Visitors to urban-proximate wildernesses were more likely to say they would continue to visit the area despite suboptimal conditions, and they also were slightly more likely to express unconditional acceptance of conditions they encountered.

## Implications for Planning and Management

Wilderness planning and management strategies need to account for the deeper meanings of "acceptability" to wilderness visitors. The frequent use of coping strategies may lead

**Table 1**—Summary of three types of acceptability judgments.

	Unconditionally acceptable	Conditionally acceptable	Unacceptable
General response	It's OK	It's OK if ...	It's not OK
Means of coping	N/A	Rationalization Remediative action	Displacement
Effect on current visit	None	Displacement	Usually minimal
Effect on future visits	None	Usually minimal Usually none	Displacement

to a false impression that wilderness conditions are not suboptimal—especially since, as Brunson (1996) has noted, acceptability is a condition more easily observed when it no longer exists. One might argue that diligent monitoring of LAC standards can detect problems before conditions become unacceptable. However, that argument assumes that standards truly represent limits of change beyond which conditions should not be allowed to degrade.

Our findings may indicate that this is not always the case. The willingness to rationalize suboptimal impacts may indicate that visitors perceive relatively stringent standards—especially for social impacts—as “yellow lights” that indicate a need for caution rather than “red lights” that indicate where change must stop. Alternatively, since acceptability judgments often are expressed in terms of the unfairness or undesirability of restrictions on wilderness recreation, participants in an LAC process may set looser standards than they should in order to avoid the need for such restrictions. Managers should be sure to ask questions that explore these nuances during negotiations to set LAC standards.

Decisions on how to allocate resources during LAC monitoring should be made in light of knowledge about how visitors cope with suboptimal impacts. In the absence of such information, managers may waste time and money attempting to maintain standards for impacts with which visitors can easily cope. Such standards may describe a condition that is ideal or desirable, but not necessary to visitors’ experiences. On the other hand, the condition might be necessary to some, but other visitors can adapt to violated standards on their own without management intervention. In this case, managers may find themselves creating an even less acceptable impact by taking a restrictive management action to restore conditions to within acceptable limits.

However, managers also must consider whether visitor preferences are the most important factor in setting LAC standards or in choosing strategies that can restore conditions to acceptable levels. Ecological expertise may be needed to judge the sustainability of conditions that visitors find acceptable—for example, when visitor use reaches levels that can reduce wildlife survival or reproductive success. The relative weight given to ecological or social criteria for wilderness management should depend on the rarity of the recreation experience provided versus the rarity of the ecological condition that might be protected. Furthermore, the fact that visitors are able to cope with suboptimal conditions serves to reinforce Shindler’s (1992), warning against a “law of diminishing standards” for wilderness.

Finally, we found that visitors to urban-proximate areas judged impacts differently than did visitors to more remote areas, and those impacts also were likely to have different effects on future wilderness visits. Since the Wilderness Act makes no distinction between urban-proximate and urban-distant areas in terms of overall preservation goals or allowable management actions, it is important for managers throughout the wilderness system to engage in an ongoing dialogue about how the needs and preferences of urban-proximate wilderness visitors can be accommodated within the spirit of the Act.

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